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10/519,466	05/25/2005	Gerard Jaulent	3978.016	2674
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AKERMAN SENTERFITT			EXAMINER	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/519,466

Applicant(s)

JAULENT, GERARD

Examiner

Andrew StClair

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3709

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16,18,20, 22-25, 27, 28, and 30 is/are rejected.
- 7) ☒ Claim(s) 17,19,21,26 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/27/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 8/5/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION*****Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “sphere (112) which comprises openings” as recited in claim 29 must be shown or the feature canceled from the claim. Figure 5 shows element 112 as a substantially spherical top region, a non-spherical bottom region, and a flattened or truncated base connecting to element 100. If applicant intends to claim element 112 as literally spherical, such feature should be shown in the drawings; if applicant intends to claim the feature as shown, the claim must be amended. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

2. Claim 24 is objected to because of the following informalities: typographical error. The recitation of “a horizontal surfaces” should be “a horizontal surface.” Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first and second paragraphs of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 30 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In particular, claim 30 recites “means for detecting a foliar spectrum.” Applicant fails to define the term “foliar spectrum.” The plain meaning of the term would suggest a range in foliage, yet applicant fails to clarify whether this range pertains to height, girth, color, species, fragrance, or another physical property. The specification, abstract, drawings, and claims are devoid of any structure which detects a foliar spectrum.

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5. Claims 20 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 20, the applicant recites the limitation “constantly touching the blades.” There is insufficient antecedent basis for this limitation in the claim because “blades” are not introduced in any of the claims from which claim 20 depends.

With respect to claim 25, the applicant recites “along the axis of the burner (B).” Because any point has three axes in a three dimensional Cartesian plane, “the axis” is indefinite for failing to specify which axis it refers to. For the purposes of complete examination, “the axis” within claim 25 is interpreted to mean “the vertical axis.” This interpretation is in agreement with figure 5; appropriate correction is required. If applicant intended a different interpretation, amend accordingly.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 16, 18, 22-24, and 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Lifshits (US 6,027,330).

With respect to claim 16, Lifshits discloses a main body (see fig. 4) having an upper end (end with front plate 4) fitted with a gas inlet 44 in the form of a coupling and a lower end (end

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with throat 10) which opens out to allow an inflamed gas and air mix to escape to create a flame; a movable diffusion cone 97 located at the lower end, the diffusion cone having a tip located at least upstream from a flame creation zone (col. 5, ln. 48-49; Lifshits describes the flame being maintained below the cone), wherein the movement of the cone permits the variation in strength of the flame (col. 3, ln. 35-47, Lifshits describes retracting the cone at lowered firing rates to avoid flame pulsation, thus permitting variation in the strength of the flame.)

With respect to claim 18, Lifshits further discloses the claimed subject matter wherein the cone 97 further comprises a lower part, wherein the lower part includes a plurality of blades 112 articulated in relation to the tip so as to move from a deployed position to a retracted position and vice versa. (col. 7, ln. 55-70; Lifshits describes blades 112 along the periphery of cone 97, thus deploying and retracting in axial motion with the cone.)

With respect to claim 22, Lifshits further discloses the claimed subject matter wherein the blades 112 overlap, one blade over the other irrespective of their position. (Fig. 4; Blades 112 overlap in the direction of the cross-sectional view as shown in fig. 4.)

With respect to claim 23, Lifshits further discloses the claimed subject matter wherein the cone co-operates with a fixed nozzle tip 12a located at the lower end of the burner.

With respect to claim 24, Lifshits further discloses the claimed subject matter further comprising a bell cover 12 coaxial to the axis of diffusion of the flames, wherein the bell cover is constituted by an external cylindrical surface (figs. 1 and 4 taken in combination show that element 12 is cylindrical) and by a horizontal surfaces (bottom edge of element 12 constitutes a horizontal surface). The recitations “of the type used for thermal weed killing” and “to maintain the hot air above the contact point of the ground with the flames” are considered intended use

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and afforded no patentable weight. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

With respect to claim 27, Lifshits further discloses the claimed subject matter wherein the burner further comprises a protector 12 located at the lower end. (Because claim 27 does not depend from claim 24, element 12 in Lifshits can be construed to be both a bell cover and a protector). The recitation of “of the type used for thermal weed killing” is considered intended use and afforded no patentable weight. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

With respect to claim 28, Lifshits discloses the claimed subject matter wherein the fixed nozzle tip 12a and the diffusion cone 97 take a different conical shape or a different slope. (Fig. 4 appears to show nozzle tip 12a taking a different slope than diffusion cone 97; fig. 4 further shows the conical shape defined by the hollow portion of nozzle tip 12a taking a different, larger shape than diffusion cone 97.)

#### ***Allowable Subject Matter***

8. Claims 17, 19, 21, 26, and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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9. Claims 20 and 25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

With respect to claim 17, applicant describes the diameter of the base of the cone changing during the operation of the burner, interrelated to the deployment or retraction of the cone, causing the flame to take the shape of the cone. This claim limitation could not be found in any of the prior art.

Claims 19-21 depend from claim 17, and thus incorporate the aforementioned patentable claim limitation.

With respect to claim 25, applicant describes a bell cover coaxial to the axis of the diffusion of the flames, constituting an external cylindrical surface, and a horizontal surface, rotary mounted in a moveable manner along the [vertical] axis of the burner B in relation to the body of the burner. This claim limitation could not be found in any of the prior art. Note that claim 25 was examined in conformity with the claim rejection above.

With respect to claim 26, applicant describes a swivel arm swiveling around at least the vertical axis of the burner, associated with at least one wheel. While the burner as claimed in claim 16 is disclosed in the prior art, and other prior art discloses swiveling arms and associated wheels, all of the prior art discloses swiveling arms pivoting about a point located on a towing vehicle, and not pivoting about the burner itself. Thus the prior art did not disclose the claimed orientation of the swivel arm.

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With respect to claim 29, applicant describes a structure which allows both the injection of gas and the intake of air, in a sphere shape. While fuel injection and air intake are not novel, combining the two into a structure shaped as a sphere could not be found in the prior art.

Moreover, applicants description in the specification of the utility of this shape precludes any obviousness rejection under MPEP 2144.04 for non-critical shape.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: McDonald (US 2,081,710); Haynes (US 2,125,019); Davisson et al. (US 2,839,047); McKee (US 2,851,092); Shumaker (US 3,782,844); Mayfield et al. (US 3,788,797); Takahashi et al. (US 4,050,879); Locanetto et al. (4,925,387); Sheley (US 5,400,545); Chastain (US 5,682,707); Johnstone et al. (US 6,257,875); Dion (US 6,578,779); and Pisano et al. (US 7,175,423).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew StClair whose telephone number is 571-272-3700. The examiner can normally be reached on Monday through Thursday, 8-5 Eastern Standard Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrence Till can be reached on 571-272-1280. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



ADS  
9/12/07



Terrence R. Till  
Supervisory Patent Examiner